ABSTRACT

Imaging method and system including thermal noise reduction for ultrasonic and magnetic resonance images. In ultrasound imaging, this method provides thermal noise reduction and a reduction of artifacts in applications with contrast agents. The method includes the computation of a simple correlation function to be applied where two or more images or vectors of the same region of the body are provided. The signals relating to the images or the vectors are: combined by a weight function which, by comparing corresponding samples of the signals or vectors, assumes values in a range between a maximum value and a minimum value depending on the mutual correlation measure between the samples. The weight function is combined with the combination of the two response signals (P1, P2, MR1, MR2). The resulting signal is transformed into image data. The signals are processed based on the peculiarities of the selected imaging system.